

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Allen P. Chen et al.
Serial No. : 09/727,393
Filed : November 29, 2000
Title : PACKET PROCESSING

Art Unit : 2662
Examiner : Gregory B. Sefcheck

Mail Stop Appeal Brief – Patents

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Pursuant to United States Patent and Trademark Office Pre-Appeal Brief Conference Program, a request for a review of identified matters on appeal is hereby submitted with the Notice of Appeal. Review of these identified matters by a panel of examiners is requested because the rejections of record are clearly not proper and are without basis, in view of a clear legal and/or factual deficiency in the rejections. All rights to address additional matters on appeal in any subsequent appeal brief are hereby reserved.

Claims 1-11 and 13-42 are presented for appeal.

Rejection of claims under 35 U.S.C. §103(a)

Claim 1 reads as follows:

1. A programmable intra-packet switching method comprising:
determining which, if any, of a plurality of data ports connected to a network, contains a data packet available for processing;
fragmenting a first portion of a first available data packet into at least one data cell having a defined size; wherein this fragmentation of the first data packet continues until a user-defined number of cells are generated;
storing, in a memory, at least one data element concerning the first available data packet, wherein:
the at least one data element includes a data element indicative of the incomplete fragmentation status of said first available data packet; and

the at least one data element enables fragmenting of a second portion of the first available data packet subsequent to fragmenting at least a portion of a second available data packet; and

subsequent to fragmenting the first portion of the first data packet and prior to fragmenting the second portion of the first available data packet, fragmenting at least a portion of the second available data packet on a different one of the plurality of data ports.

Claims 1-8 is rejected under 35 U.S.C. §103(a) as being unpatentable over Cam in view of Bucholz.

Cam, alone or in combination with Bucholz, fails to disclose or suggest “fragmenting a first portion of a first available data packet into at least one data cell having a defined size; wherein this fragmentation of the first data packet continues until a user-defined number of cells are generated” as recited in the Applicant’s claim 1.

Cam does not even relate to packet fragmentation let alone disclose the method of packet fragmentation covered by the Applicant’s claims. In contrast, Cam teaches a method for “coordinating the transfer of data” based on a process that includes polling, selection, and data transfer.¹

In Cam’s data transfer process, a device polls multiple ports to determine which, if any, ports have data available for transfer. After determining which ports have data available for transfer, the device selects a particular port and transfers data from the selected port. As noted by the Examiner, Cam’s process limits a maximum block size of data that may be transferred.² For example, Cam states:³

For both the transmit and receive interfaces, the maximum block size that may be transferred depends on the application. For example, the maximum block size

¹ Cam, col. 2, lines 55-60.

² Cam, col. 3, lines 2-4.

³ Cam, col. 3, line 2-10 (emphasis added).

for ATM cells may be 52-bytes (excluding the header error control byte) while the maximum block size for packet fragments may be 256 bytes. The maximum block size is fixed at start-up, either inherently in the Link Layer and PHY-devices, or by programming through an external management interface.

Thus, Cam limits the size of a data transfer not packet fragmentation. As such, Cam fails to disclose or suggest a method in which “fragmentation of the first data packet continues until a user-defined number of cells are generated.” Bucholz is not believed to add anything that would remedy the foregoing deficiency of Cam vis-à-vis claim 1.

Additionally, Cam, alone or in combination with Bucholz, fails to disclose or suggest a data element that “enables fragmenting of a second portion of the first available data packet subsequent to fragmenting at least a portion of a second available data packet” as recited in the Applicant’s claim 1.

As the examiner acknowledges,⁴ Cam does not disclose or suggest storing a data element that enables fragmenting of a second portion of a first available data packet subsequent to fragmenting at least a portion of a second available data packet.

Bucholz’ reassembly header, to which the examiner refers, simply provides information for re-assembling packet fragments. Unlike the Applicant’s data element, the reassembly header is not “indicative of the incomplete fragmentation status of said first available data packet.”

In addition, Bucholz fragments the entire packet consecutively.⁵ Since the packet is fragmented consecutively, Bucholz would have no need for a data element that enables fragmenting of a second portion of a first available data packet subsequent to fragmenting at

⁴ Final Office Action mailed July 17, 2006, page 4.

⁵ col. 8, lines 9-13.

least a portion of a second available data packet. Therefore, Bucholz's reassembly header cannot be an example of the Applicant's "data element."

Claims 9, 21, 24, 29 and 32 all recite that the packet fragmentation process continues until a user-defined number of cells are generated or until a port-switching event occurs and are patentable for at least reasons similar to claim 1.

Each of the dependent claims is also believed to define patentable features of the invention. Each dependent claim partakes of the novelty of its corresponding independent claim and, as such, has not been discussed specifically herein.

Therefore, the Applicants request reconsideration and withdrawal of this rejection.

For at least the reasons discussed above, the Applicants believe the claims are in condition for allowance, which action is requested.


Payment for the Notice of Appeal is enclosed. No additional fees are believed to be due in connection with the filing of this request for review. However, to the extent fees are due, or if a refund is forthcoming, please adjust deposit account 06-1050, referencing attorney docket no. 10559-385001.

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Respectfully submitted,

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